

Implementation of Enterprise Risk Management: A Case Study of a Public Sector Entity in the Northern Cape, South Africa

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Abstract

Since the advent of South Africa's democracy in 1994, there has been an increasing demand by stakeholders for several public services due to a variation of complex and challenging events that have taken place and reported both in social and academic circles. In the context of the Northern Cape, there has been a continued increase in unemployment and poor service delivery coupled with an inability of the Department of Economic Development and Tourism (DEDaT) to achieve clean audit reports from the Auditor-General of South Africa (AGSA). This development raises questions about the implementation of ERM processes. Thus, this study aimed to assess the implementation of ERM processes using DEDaT as a case study. The study sought to determine the ERM systems currently deployed and the extent to which the ERM components are utilized by DEDaT. Data was gathered through in-depth interviews using a qualitative approach. A sample of eighteen participants who are ERM role players at DEDaT described their knowledge and experiences on the implementation of ERM systems and how the components are applied. From the findings, two main themes, namely, 'ERM systems deployed at DEDaT' and 'perceptions on ERM components that are utilized,' emerged with related subthemes. The study revealed that DEDaT has ERM systems in place, however there were gaps in key areas that need improvement to enhance the ERM instrument. Furthermore, the research found that a set of eight components were utilized to implement the ERM process. The study suggested recommendations to management for further research and policy direction on implementing ERM in the public sector.

Keywords: *Enterprise Risk Management, Risk Management, Public Sector, Risk, Risk Management Process*

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Introduction

Governments all over the world are frequently faced with a variety of multifaceted and perplexing events that necessitate setting up sufficient controls to ensure that public value is supplied. The weaknesses exposed at various establishments both at international and domestic levels, such as Enron in the United States, governance failures and financial crises at Eskom, Transnet, and the SABC, the occupational health and safety weaknesses at Life Esidimeni and the outbreak of fire in Johannesburg at the Bank of Lisbon Building in September 2018, which resulted in three human lives being lost have left stakeholders with decreased confidence and increased reputational risk exposures. In the case of the Bank of Lisbon building, it was found that the bank was unsuccessful in meeting the terms of the occupational health and safety (OHS) standards due to the building only receiving a 21% compliance score (Times Live, 2018). This contravenes the Occupational Health and Safety Act (S.8 OHSA, 1993). Similarly, Enron, graded in the top ten of America's biggest companies, had to file for liquidation in 2001 due to corruption, fraud, and corporate governance failures. These undesirable occurrences highlight the impact of risks arising from within an organization largely due to unethical actions or flouting standard operational processes. Literature suggests that enterprise risk management (ERM) is "one of the best ways in which risks can be managed" (Hopkin, 2014; Rossouw, 2018). ERM is described as "the process of identifying major risks that confront an organization, forecasting the significance of those risks in business processes, addressing the risks in a systematic and coordinated plan, implementing the plan, and holding key officials responsible for managing critical risks within the scope of their responsibilities" (Hampton, 2015). It is the "progression conducted by the administration to understand and deal with risks that could affect the establishment's ability to accomplish its objectives" (Reding *et al.* (2013). According to Lam (2003) the ERM instrument "would be responsible for the direct management of risks, coordinate ERM actions and provide overall risk monitoring for the administration."

This article focuses on ERM in the public sector. This is informed by the increasing demands by stakeholders on several public services for profitable and sustainable operations. Public sector organizations are accountable for services such as providing health care and education,

protecting the environment, regulating the industry, and paying social services, and all involve some degree of risk (Chapman, 2011).

Statement of the Problem and Rationale for the Study

The ERM processes of the Department of Economic Development and Tourism (DEDaT) in the Northern Cape had been highlighted as inadequate to detect and prevent control deficiencies (The Auditor-General Report, 2019). This undesirable situation has the potential to worsen the state of unemployment in the Northern Cape (Statistics South Africa, 2019), the inability to achieve and maintain clean audits (Department of Economic Development and Tourism, 2019, 2017 & 2016) as well as non-achievement of set objectives (Department of Economic Development and Tourism, 2018 & 2019). From all indications, it appears risk management within the public sector is mainly focused on putting risk management frameworks in place (Kenosi, 2016; Nel, 2019). Currently, there is little or no study on the implementation of risk management within the public sector. Risk management is still regarded as a burden, and there is inadequate cooperation among risk management implementers and oversight structures (Kenosi, 2016). This paper, therefore, seeks to illuminate the ERM systems deployed in the public sector.

Aim and Objectives of the Study

The aim of the study was to assess the ERM processes deployed in the public sector, using DEDaT as a case study. Flowing from the main objective, the specific objectives were: i) To identify the ERM systems that are currently deployed in the Department; and ii) To establish the perceptions of the stakeholders on the ERM components that are utilized by DEDaT.

Literature Review

Components of the Enterprise Risk Management Process

Previous studies indicate that the enterprise risk management process can be separated into segments and may comprise some connected elements (Perry & Hayes, 1985). The proposed ERM process involves eight main steps that are explained as follows:

The Internal Environment

An establishment's control environment consists of a "variety of internal factors, which provide the foundation for the organization's ERM approach as well as discipline and structure" (Caron, Vanthienen & Baesens, 2013). According to Funston (2003), the ERM process commences with assessing the internal and external environments surrounding the establishment's strategy for achieving its institutional objectives, the organizational culture, including internal controls, and

the risk threshold levels of the establishment. He further elaborates that the control environment is an imperative component of the ERM process, as insufficiencies in this environment are often the cause of risk and internal control weaknesses (Funston, 2003). A recent study by Hopkin (2017) reports that the "internal setting of an establishment is about its culture, its available resources, the receiving of productions from the ERM process and the assurance that these influence behaviors, as well as supporting and providing governance of uncertainty" and ERM (Hopkin, 2017). The internal context can include governance structures, policies and strategies, institutional capabilities and standards, models, and guidelines adopted by the establishment.

Objective Setting

In a performance management context, "objectives must exist before employees can identify events potentially affecting their achievement." Objective setting can be described as the alignment of the establishment's commercial risks with its corporate and business goals and objectives (Gates *et al.*, 2012). According to Hopkins (2017), the internal context concerns objectives, the capacity and capabilities of the institute, and the institution's core processes that are in place.

Risk Identification

Having confirmed and clearly documented the establishment's objectives, it is essential to identify all the actual and potential risks and threats relating to processes, assets, reputation, and strategy. Funston (2003) asserts that the next activity after objective setting in the ERM process is the creation of a risk identification methodology. Several studies have revealed that uncertainties cannot be controlled if they are not acknowledged (Valsamakis *et al.*, 2000; Young, 2006). According to Taran, Boer, and Lindberg (2013), risk identification is the identification of numerous events that will have an adverse impact on objectives in areas of strategic, operational, cultural, financial, technology, compliance, and hazard risks.

Risk Assessment

Risk assessment encompasses the acknowledgment of uncertainty and the assessment to determine the significant risks facing the establishment, project, or strategy (Hopkin, 2017). Assessing risks encompasses management's consideration of all identified risks at an inherent and residual risk level (Marchetti, 2012). Another study asserts that risk analysis can be done either quantitatively or qualitatively, with the quantitative measures using numerical techniques,

such as calculation of probabilities, and qualitative analyses that are subjective non-numerical techniques to determine the extent of risk exposure (Rouse, 2010). Several authors argued that the risk assessment segment serves as the basis for the subsequent step in the ERM process, namely the development and implementation of risk response plans (Leopoulos *et al.*, 2006).

Risk Response

Risk response plans should be identified for the various risk exposures after the uncertainties have been identified and the contributing factors or root causes have been established. When determining risk response, management ought to assess the likelihood and impact of the risk, cost versus benefit, as well as potential opportunity in achieving stated objectives" (Marchetti, 2012). The risk response plans comprise the identification of internal control options, selecting an internal control option, and implementing the selected internal control (Shortreed, 2010). Hopkin (2017) emphasizes that the internal control measures to manage risks should embrace judgments about whether to tolerate, treat, transfer, or terminate.

Control Activities

According to Caron, Vanthienen, and Baesens (2013), control activities are the policies and procedures developed to implement the risk mitigation plans defined by management. Previous studies have reported that risk control actions should focus on controlling risk implicit uncertainties, specifically the impact of losses and the probability of loss occurrence (Valsamakis *et al.*, 2000; Young, 2006). Control activities help ensure the necessary processes are implemented to support an establishment's objectives. These internal control processes transpire throughout the establishment, at strategic and operational levels, and in all functions (Rae *et al.*, 2008). One of the techniques to certify that internal controls are executed is to have Standard Operating Procedures (SOPs), Operational Plans, procedures manuals, or business processes for every business unit in the establishment, including the regular review of approved administrative policies and strategies.

Information and Communication

The information and communication component involves identifying, capturing, and communicating relevant information (Caron *et al.*, 2013). An ERM information system necessitates effective processes, an appropriate infrastructure, correct data, and well-timed reporting in order for management to make knowledgeable resolutions (Funston, 2003). Risk information will support management in articulating the establishment's risk framework, and risk

and action owners should be empowered to take action to prevent a low risk from escalating (Dickinson, 2001). Shortreed (2010) asserts that there must be widespread risk communications among participants and discussions with other specialists in the establishment to ensure the accuracy and efficacy of accomplishments in the ERM plan.

Monitoring

Risk monitoring is recognized as the concluding stage of the ERM process. Generally, establishments ensure the efficiency of their ERM techniques and actions within the limitations set by administrative policies and procedures (Hollman & Forrest, 1991; Young, 2006). Monitoring risks involves examining the effectiveness and appropriateness of the risk response plans (Marchetti, 2012). Risk monitoring and evaluation are fundamental to the uninterrupted enhancement of ERM, as most methodologies to risk maturity study how monitoring and evaluation lead to actions and noticeable developments (Shortreed, 2010). Monitoring and evaluation are the activities accepted to confirm that the ERM instrument works according to the institution's ERM framework and materializes at the appropriate level of cost and effort.

ERM Framework and the Implementation of ERM within the Public Sector

The British Standard Institution (2011, p. 8) describes an ERM framework as “a set of components that provide the foundations and administrative arrangements for designing, implementing, monitoring, reviewing and continually improving ERM processes throughout the establishment.” This definition was corroborated by Shortreed (2010), who explains that the foundations of an ERM Framework include the policy, objectives, mandate, and commitment to manage risk (strategy); the administrative arrangements, which include plans, relationships, accountabilities, resources, processes, and activities. In addition, the ERM framework should be entrenched within the establishment’s overall strategic and operational policies and practices (Shortreed, 2010).

The essence of an establishment’s ERM framework is to facilitate ERM processes that identify the associated risks, assess the risks, manage the risks within an appropriate framework, and are supported by risk communication and consultation as well as monitoring and evaluation (Shortreed, 2010). A structured ERM framework with clear ERM processes supports the establishment of ERM effectiveness (Hopkin, 2010; Merna & Al-Thani, 2008). Several risk management standards describe an ERM framework and processes as the main building blocks

for efficacious risk management. Thus, enterprise risk management must be part of the establishment's strategy in the field of superiority, and it can be argued that it affords the necessary framework for continuous enhancement, total employee participation, a systematic approach, informed decision-making, communication, and management commitment (Paraschivescu, 2016).

Given the importance of ERM to an organization, the roles and responsibilities of all ERM role-players must be adequately defined and agreed upon in an ERM Framework to manage any uncertainty regarding the scope of responsibilities and the structure of ERM oversight. Alvarez (2005) avers that one of the greatest encounters in the business environment is the establishment of an enterprise-wide risk management framework that incorporates the many facets of uncertainty at the operational level. Furthermore, a study conducted by King (2001) highlights that an effective framework provides the ability to identify significant risks to the establishment, identify root causes for manageable risks, categorize risks as manageable and uncontrollable, assign uncontrollable risks to mitigation categories, and provide measurement response on variations in risks and relate them to management actions.

Enterprise Risk Management in the Public Sector

Every industry is confronted with risks, particularly those functioning "at high capacity with a massive number of employees and resources like the public sector" (Kong *et al.*, 2018, p. 3). The public sector has recently faced various complex and challenging events, and adequate processes are required to ensure that the perceived public value is maintained at certain levels" (Ahmeti & Vladi, 2017). Therefore, the ERM practices in the Public Sector are intended to enhance governance, specifically to respond to stakeholders' demand for improved control of public resources and to focus on exploring risks existing in the government's contractual affiliation" (Bakar *et al.*, 2019).

The events of public sector establishments, which comprise health care services, education, environmental protection, and many other divisions, are strongly tied to the existence of uncertainty that needs to be identified, evaluated, monitored, and managed as a part of the ERM process (Kapusinska & Matejun, 2014). Therefore, managing risk and preventing accidents within the public sector rests on activities and interfaces among role-players at different system levels (Rasmussen, 1997; Leveson, 2004).

What becomes imperative is the effectiveness of the ERM process, which mainly hinges on the administrative solutions accepted by the establishment (Kapuscinska & Matejun, 2014). Public sector establishments, such as local government, are generally enormous and slow-moving, making it problematic to get any sort of ERM strategy executed (Ene & Dobra, 2006). According to McPhee (2005), the ERM processes in government are gradually better understood; however, understanding these elements and the connected processes does not guarantee the appropriate treatment of risks in an establishment.

The study conducted by Martin and Wanna (1996) (in Kapuscinska & Matejun, 2014, p.132) argue that managers in public sector establishments should not concentrate only on ensuring an appropriate place for management instruments. However, management should also execute an assessment of the entire establishment and, through their actions, influence the strategic and operational levels of its function. To ensure appropriate implementation of ERM processes, public sector administrators can use internal auditors' support (Kapuscinska & Matejun, 2014). The authors further explain that since internal auditors possess the skills and knowledge, establishments can appropriately implement both preventive processes and processes that reduce risk. Gherai and Balaciu (2013) argue that internal audit reports can also be used as support since such reports comprehend evidence regarding best practices to be performed in public sector establishments to be included in ERM processes.

Municipalities handle many requirements and objectives and have sophisticated administration and regulations; ERM in the public sector becomes more complex and challenging (Nilsen & Olsen, 2005). The case study of Leung and Isaacs (2008) also supports the notion that ERM in the public sector is very problematic, primarily from countless interests involved, such as political influence. Braig, Gebre, and Sellgren (2011) agree that managing uncertainty in government is more complex than in the private sector. For instance, as a sphere of government, municipalities have to abide by several requirements and objectives, coupled with high levels of bureaucracy and regulation.

Theoretical Framework

This study utilized the Agency Theory to explain the implementation of ERM in the public sector. Literature suggests that Adam Smith is possibly the first author to highlight the existence of an agency problem, and since then, it has been an encouraging factor for economists to

improve on the aspects of agency theory (Panda & Leepsa, 2017). Agency Theory revolves around creating a relationship between one person who decides on the work to be done (principal) and another who executes the work (agent). The principal is the employer, and the agent is the employee who manages the establishment on the employer's behalf. These two parties have different and conflicting goals and interests, so there exists a conflict called the agency problem (Panda & Leepsa, 2017). In line with this theory, there is a general view that agents have interests and behavioral biases that conflict "with the best interests of" the principal. In any organization, top management is responsible for ensuring that organizations are managed to meet the interests of all stakeholders.

Thus, Agency Theory is linked to the focus of this study on the implementation of ERM in the Public Sector since ERM, as a management instrument, can assist an organization in accomplishing its commercial goals and eventually capitalize on stakeholders' value (Bowen *et al.*, 2006; Nocco & Stulz, 2006). In this study, the state represents the principal while top management, represented by the Head of Department (HoD), the Executive Management, and the Chief Risk Officer (CRO) act as the agents. Agency theory encourages top management's commitment to ERM implementation to create and enhance the stakeholders' value as opposed to the current practice of only putting risk management frameworks in place.

Methodology

This study adopted a qualitative approach and was exploratory. The study was conducted at DEDaT in the Northern Cape Province, South Africa. DEDaT is the government department in charge of economic development and planning, as well as promoting and growing tourism in the South African province of the Northern Cape. The choice of DEDaT as a case study aimed to reveal ERM implementation in public sector institutions. The target population for this research study was the ERM role-players of DEDaT, ranging from ERM implementers, ERM assurance providers, and Small, Medium, and Micro Enterprises (SMMEs) who indirectly contribute to the achievement of departmental objectives. The key role players in the ERM sector are depicted in the following diagram.

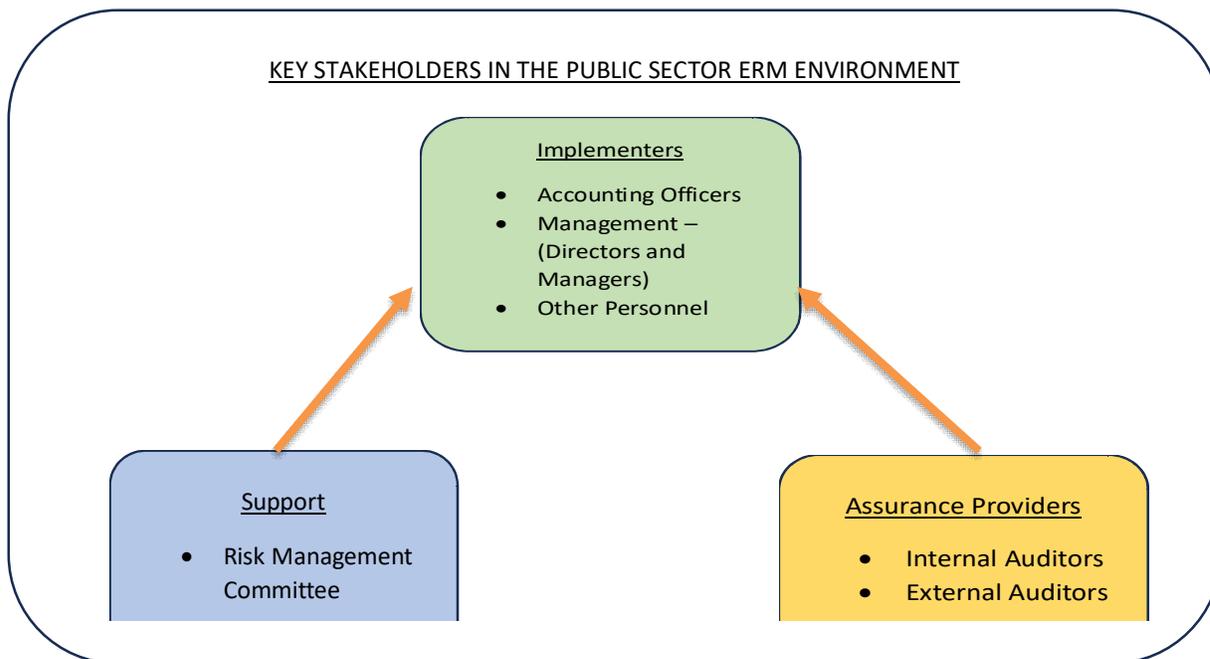


Figure 1: Description of the Key Stakeholder in the Public Sector ERM Environment

Source: Adapted from National Treasury (2010)

Data was collected through in-depth interviews and document analysis to answer the research questions. Individual members of the Department (DEDaT) and external stakeholders were interviewed. The diverse perspectives of internal and external stakeholders provided insights into understanding the research problem. The selection procedure used in this study was a purposive sampling technique, as it enabled the selection of individuals who had the knowledge to provide the required information for the study. A sample of 19 individuals was chosen from various institutions, all of whom form part of DEDaT's ERM environment.

The sample size of internal stakeholders interviewed was nine. The nine individuals comprised the Accounting Officer, two Chief Directors, two Directors, two Deputy Directors, and two Assistant Managers. The sample frame for the internal stakeholders is highlighted in Table 1 below.

Table 1: Sample Frame for the Internal Stakeholders

Internal Stakeholders	Total employees	Sample size
Accounting officer	1	1

Chief Director	8	2
Director	16	2
Deputy Director	17	2
Assistant Manager	24	2
Total	66	9

The study targeted officials at the management level as these officials are familiar with and understand the processes of ERM and are responsible for the ERM instrument in the establishment. Therefore, they were key in providing valuable insights and responses to the study. The sample size of external stakeholders interviewed was ten. The make-up of the ten is as follows: two officials from the Office of the Auditor-General, two individuals from the Office of Internal Audit, two enterprises the Department financially supported, two members of the Department's Audit Committee, and two officials from the Provincial Accountant General (PAG) office who render a support function to departments and municipalities on risk management. The sample frame for external stakeholders is indicated in Table 2 below.

Table 2: The Sample Frame for External Stakeholders

External Stakeholders	Total employees in the establishment	Total employees assessing the DEDaT ERM environment	Sample size
Auditor-General Office	160	17	2
Internal Audit Office	58	12	2
Financially supported enterprises	535	-	2
Audit Committee Department	5	5	2
PAG Office	33	8	2
Total	256	42	10

To answer the research questions, data was collected through in-depth interviews with the ERM role-players of DEDaT and document study. Data were thematically analyzed using inductive

reasoning (Creswell & Poth, 2017). The six-phase framework was followed to analyze the data obtained from participants (Papadopoulou *et al.*, 2021). The six-phase framework consists of the following steps: i) becoming familiar with the data, ii) generating initial codes, iii) searching for themes, iv) reviewing themes, v) defining themes, and vi) writing up the findings. Consequent to the finalization and transcribing of the interviews, data was organized in a meaningful group in order to generate codes. Coffey and Atkinson (1996, p. 27) state that "coding can be thought about as a way of relating our data to our ideas about these data." After generating codes, the codes were then organized into broader themes.

Results and Discussion

ERM systems that are deployed at DEDaT

The first objective was to identify the ERM systems currently deployed in the Department. The findings of the study revealed that DEDaT has ERM systems in place. It was found that the ERM systems comprise an approved ERM Framework (Policy, Strategy, Committee Charter, and annual ERM Implementation Plan), a fully capacitated ERM unit, a departmental risk register, and a functional Risk and Ethics Management Committee. Thematically analyzing all the collected data led to common sub-themes, with the first being the development and approval of an ERM Framework. One of the participants disclosed that "*The CRO drives the ERM processes regarding the consultative development and approval of the ERM Framework consisting of an ERM Committee Charter, ERM Policy, ERM Strategy, and risk register.*" This disclosure supports findings from a literature review from Chapman (2011), which found that the purpose of an ERM framework is to assist an establishment in integrating ERM into its management processes so that it becomes a routine action and to ensure that information about risk resulting from the ERM process is adequately reported and is used as a basis for informed decision making. According to Shortreed (2010), an ERM framework supports the ERM process for decision-making and aggregates risk information, risk management, and performance of risk controls in the establishment. Through document study, it can be concluded that DEDaT's ERM Framework has been recently reviewed by management, recommended by the ERM Committee, and approved by the Head of Department.

The next thematically analyzed sub-theme was oversight performed on ERM by Governance Structures. This sub-theme took into consideration the "tone at the top and decision-making" in

an establishment (Ring *et al.*, 2016). The finding revealed that oversight roles are performed by established governance structures such as DEDaT. For instance, one of the participants articulated: "*At the strategic level, the ERM Committee performs an oversight role on ERM processes and advises the Accounting Officer on the state of ERM, with quarterly reporting to the Executive Management Committee.*" Another participant also disclosed, "*Management meetings have a standing agenda item for ERM under Accountability Matters where the ERM Committee reports are presented and discussed*". The findings from these participants are in line with a previous study that indicates that the oversight of the ERM processes employed by an establishment is one of the most vital and challenging functions of an establishment's board of directors, and it is the board's responsibility to work with executive management to establish the appropriate "tone at the top" to ensure that risk and ERM remain at the forefront of the strategic and operating resolutions made within the establishment" (Branson, 2010). The findings further revealed that the risk and ethics management reports are quarterly presented and discussed at the Risk and Ethics Management Committee (REMC) and Extended Executive Management Committee (EEMC) meetings.

A further sub-theme found within objective one is implementing the ERM process. The sub-themes revealed that ERM processes are implemented on a continuous basis at DEDaT. One of the participants stated: "*The ERM processes are coordinated by the CRO, and these processes are continuous.*" This finding is consistent with the literature, which suggests that ERM is a process that is implemented by people in the establishment (Moeller, 2007). The ERM process at DEDaT is facilitated and coordinated by the ERM unit and implemented by management and other personnel; ERM oversight is conducted by the ERM Committee, EEMC, and the Audit Committee and is continuous.

The integration of strategic ERM with departmental strategy was identified as a further sub-theme within the identification of ERM systems deployed at DEDaT. To analyze the participants' suggestions regarding strategic ERM, one of the participants disclosed that "*Risks are discussed when strategic sessions are held by Program Managers for each program.*" Another participant remarked, "*The reporting of ERM is a standing item at strategic sessions, Program and Sub-Program meetings.*" These findings revealed that DEDaT is aligned with literature which highlights that for the ERM tool "to be effective, ERM must be part of the strategic planning

process and the strategy execution processes" (Frigo & Anderson, 2011). From these findings, it can be concluded that ERM is part of the Department's strategy.

The last sub-theme centered on the development and maintenance of the risk register. The findings for this sub-theme revealed the existence of a risk register, which is maintained at DEDaT. One of the participants stated, "*A risk register is maintained for each program, and it is regularly updated.*" Another participant emphasized, "*A risk register is utilized to record all identified risks.*" The findings within this sub-theme support that of Hopkin (2017; IRM, 2010), which indicates that the risk register is a record of the significant risks faced by an establishment, the controls currently in place, additional controls required, and responsibility for control activities. In the context of DEDaT, through document analysis, it was found that a risk register is maintained for strategic and operational risks per program and is annually reviewed.

Perceptions of the stakeholders on the ERM components that are utilized by DEDaT

The second objective was to establish the perceptions of the stakeholders on the ERM components that are utilized by DEDaT. This study found that DEDaT utilized eight components to implement the process. This is consistent with previous studies, which recommend that compliance with the ERM Committee of Sponsoring Organizations of the Treadway Commission (COSO) standards should be measured in eight areas (Hampton, 2015). One of the participants remarked, "*The department is making use of eight ERM components as outlined in the ERM Strategy, and the ERM process is implemented continuously by way of approved policies and procedures.*" Support for these findings from the participants on the continuous ERM implementation comes from Hopkin (2017), who suggests that successful implementation of an ERM initiative is an ongoing process that involves working through the components on a continuous basis. The author further asserts that establishments should ensure that the ERM process is repeated as often as necessary to overcome the difficulty of a static snapshot of the status of the risks facing the establishment, and this will ensure that ERM remains a dynamic activity (Hopkin, 2017). It was further revealed that progress on the implementation of ERM components is reported quarterly to the Risk and Ethics Management Committee (REMC).

The sub-theme on internal environment setting the foundation for ERM was identified. The findings revealed that the ERM process starts with the risk management philosophy, risk appetite, risk tolerance limits, integrity and values, departmental structures, policies, and

procedures. One of the participants pointed out that "*The risk registers of all programs are reviewed annually, and this includes the identification of new / emerging risks, the evaluation of the effectiveness of the existing controls and the materiality levels of the identified risk.*" This finding is supported in literature which states that an establishment should determine the "risk appetite and risk tolerance levels and evaluate the existing controls as well as embedding a risk-aware culture and align ERM with other activities in the" establishment (Hopkin, 2017). Not having a defined risk appetite points to the lack of boundaries in place that guide what establishments pursue (Ogutu *et al.*, 2018). Through document analysis, it was found that risk threshold levels are contained in the departmental strategy and risk register. A risk tolerance model is part of DEDaT's approved ERM Strategy.

A further sub-theme was found through thematic analysis of the objective setting for the achievement of long-term goals. The findings revealed that objective setting at DEDaT happens annually. This position was confirmed by one of the participants who said: "*Annually, objectives are set, and risk identification sessions are facilitated and coordinated by the ERM unit.*" This statement from this participant supports the view of Moeller (2007), who indicated that an establishment must institute a series of strategic objectives that cover its operations, reporting, and compliance activities. According to him, these strategic objectives are high-level goals that should be aligned with an establishment's mission or vision. All the departments are required by the PFMA and the Framework for the Managing of Program Performance Information (FMPPi) to set strategic objectives every five years and annually review these objectives.

Risk identification of key risks and risk factors was identified as a sub-theme within the second objective. The findings revealed that risk identification occurs regularly, and several risk identification tools and techniques are utilized. For instance, one of the participants mentioned, "*Risk identification formally occurs once a year with quarterly informal reviews.*" Overall, within risk identification, the participants' views of regular risk identification support research conducted by Chapman (2011), who suggests risk identification is a conversion process, usually facilitated by a risk expert where experienced employees generate a series of risks and opportunities. From the findings, it can be concluded that risk identification sessions at DEDaT happen formally once a year through workshops and quarterly informal risk identifications with performance and audit reports as sources.

The present study also uncovered another sub-theme on risk assessment based on likelihood and impact. The findings revealed that risk assessments are conducted for every identified risk. It was confirmed that *"Risk assessment at DEDaT happens annually in line with the requirements of the Public Sector Risk Management Framework (PSRMF)."* Chapman (2011) suggests that the purpose of the risk assessment stage is to provide a conclusion of the likelihood of the risks and opportunities occurring and their impact, should they happen. Document analysis further evidenced that DEDaT's risk assessment methodologies include risk rating guides for likelihood and impact.

Findings from another sub-theme on risk responses to manage key risks revealed that risk responses are developed for each risk factor. One participant indicated, *"The risk response plans of DEDaT include ERM policies, strategies, risk assessment methodologies, and performance management."* This finding aligns with research from the literature review from Reding *et al.* (2013) assert that risk response is an action, or set of actions, taken by management to achieve a desired ERM strategy and can be characterized as risk avoidance, reduction, sharing, or acceptance. In the environment of DEDaT, it was found that response plans are formulated for all identified risks, and these are contained within the risk register.

The control activities to confirm that the policies, procedures, and operational plans that are being implemented were identified in this study. The findings revealed several approved departmental policies, operational plans, and system descriptions exist for all the Programs. One participant disclosed that *"ERM controls such as segregation of duties, fraud management, internal controls, and procedures are in place."* Another participant further stated, *"Implementation of continuous ERM activities is done by approved policies and procedures."* These findings are in consonance with the COSO definition of control activities as the policies and procedures necessary to ensure identified risk responses are carried out (Moeller, 2007). The findings show that DEDaT has approved policies and SOPs in place, which are reviewed regularly.

Another sub-theme on information and communication of ERM revealed that ERM is reported and discussed at various departmental oversight structures on a continuous basis. One participant disclosed that *"Risks are discussed to the extent that each Program and Sub-Program identifies risks about their area of operations."* The participant further stated that Management meetings

have a standing agenda item for ERM under "Accountability Matters," where the risk management committee reports are presented and discussed. These findings agree with the literature, which indicates that pertinent information is identified, captured, and communicated in a form and time frame that enables people to carry out their responsibilities (Reding *et al.*, 2013; Hopkin, 2017). In the context of DEDaT, the study findings revealed that ERM information and communication are reported quarterly at various committee meetings, namely the Risk and Ethics Management Committee (REMC), the Extended Executive Management Committee (EEMC), the Information Technology Steering Committee and Departmental Strategic sessions. Finally, regarding the sub-theme on monitoring and evaluation to ensure the ERM process is working, findings revealed that monitoring and evaluation are executed by management, risk management, and external assurance providers. This view was corroborated by one participant who stated, "*Monitoring and evaluation of identified risks takes place on a quarterly basis.*" Also, another participant narrated that "*Action plans are designed and monitored on a regular basis with the top risks being prioritized and progress on the management of these risks are reported every quarter.*" These findings contrast with literature that suggests that the monitoring and evaluation module is necessary to ensure that all modules of an installed ERM process continue to work efficiently (Moeller, 2007). It was also revealed from the findings that the monitoring and evaluation component at DEDaT is implemented quarterly in line with the approved ERM implementation plan; however, not all the installed components function effectively since significant internal control deficiencies were identified by external ERM assurance providers.

Conclusion

This study investigated the implementation of ERM in the Public Sector using the DEDaT in the Northern Cape as a case study. It sought to identify the ERM systems currently deployed in addition to ascertaining the extent to which these ERM systems are utilized. The findings provided answers to the research questions that guided this study. The qualitative results showed that ERM systems are in place at DEDaT, and the utilization of an ERM process, which consists of eight components, is continuously implemented by management and other personnel. The findings further revealed that oversight roles are performed by the established governance structures at DEDaT, and ERM is part of the Department's strategy.

Recommendations

Given the importance of implementing a successful ERM in an institution, management should take full ownership and accountability for the process and provide continuous support to the ERM unit to enhance the performance of the Department. There should be concerted efforts to undertake a regular gap analysis of the ERM Framework and process to address any shortcomings and challenges in the ERM process. There is also the need to incorporate ERM in the performance appraisals of management and regularly assess them in line with the performance management system. Further, management should incorporate ERM capacity building as part of the departmental Training and Development and Skills Development Programs and Personal Development Plans of the ERM unit and provide ongoing awareness to empower all DEDaT personnel on ERM. Lastly, management should build a strong ERM culture that embraces "general awareness, attitude and behavior of staff towards risk and the management of risk within the" Department.

Furthermore, future research should investigate the participation of executive management in the implementation of the all-inclusive ERM process. This study also suggests that there should be an investigation into project risk management to ascertain why many projects in the Public Service are not completed on time and not within budget. Another area that should be considered is the study on the probability of the South African Government to develop legislation or a regulation on ERM for the Public Service to implement and adhere to.

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